



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,856	08/06/2003	Satoshi Hirosawa	066409-224	9153

7590 12/03/2004

DYKEMA GOSSETT PLLC  
Franklin Square, Third Floor West  
1300 I Street, N.W.  
Washington, DC 20005-3353

EXAMINER
----------

WYSZOMIERSKI, GEORGE P

ART UNIT	PAPER NUMBER
----------	--------------

1742

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/634,856

Applicant(s)

HIROSAWA ET AL.

Examiner

George P Wyszomierski

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20030806 (Continuation, Prelim.Amdt.).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner. See page 2.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 07/204,553.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 1742

1. The specification is objected to as containing a number of minor departures from standard idiomatic English grammar and spelling. Examples of such errors include, e.g. the term "miniaturi-zation" at page 1, line 15. Correction of all such errors is required.

2. Claims 1-5 are objected to because:

a) In line 3 of each claim, "MGPe" should be changed to --MGOe--, the standard abbreviation for Mega-Gauss Oersteds.

b) In claim 1, line 5, "MN" should be changed to --Mn-- and "NI" to --Ni--, the standard abbreviations for manganese and nickel, respectively.

c) The claims contain a number of improper Markush groups; the phrase "selected from the group consisting of" should introduce all such groups. Also, it is unclear from the wording of the claims what elements (if any) are required and which are optional elements in some of these groups, e.g. the group consisting of Al, Si, Cu, Cr, Mn, and Ni.

d) Claim 4 does not define any amount of element "A" present.

e) The claims recite a number of components in an amount "less than" a certain percentage, for example, "less than 10% Co". While not indefinite *per se*, the examiner notes that compositions containing 0% of the recited components may fully meet the limitations of the instant claims.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimura et al. (U.S. Patent 4,773,950).

Table 3 of Fujimura et al. discloses examples of magnetically anisotropic sintered magnets containing iron, boron, a rare earth element, and one or more of the "A" elements as defined in the instant claims. A number of these examples have  $iH_c$  and  $BH_{max}$  values within the ranges as defined in the instant claims. Additionally, column 4 of Fujimura indicates that many of the optional elements recited in instant claim 2 may be present in such magnets. While no specific example of the prior art contains all of the elements as presently recited, the overlap in composition between the present claims and the Fujimura disclosure creates a prima facie case of obviousness of the presently claimed invention; compare *In re Malagari* (182 USPQ 549). One of ordinary skill in the art would have arrived at the contents of the claimed magnets by optimizing the amounts of the elements as disclosed by Fujimura et al., because Fujimura discloses the utility of compositions over the entire range disclosed therein.

5. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimura et al., as above, in view of either Matsuura et al. (U.S. Patent 4,597,938) or Sagawa et al. (U.S. Patent 4,792,368).

The Fujimura magnets, discussed supra, do not contain cobalt. However,

a) As noted in item 2(e) supra, the instant claims recite "less than" a certain percentage of cobalt, and therefore do not require cobalt to be present in the claimed products.

b) Both Matsuura and Sagawa disclose sintered magnets similar to those of Fujimura, and which also contain cobalt. According to Matsuura column 2, the cobalt raises the Curie temperature of the magnet, and according to Sagawa column 8, the cobalt gives the magnets

Art Unit: 1742

"better resistance against temperature dependency". These are the same features as desired by Applicant, as indicated at page 8, lines 12-14 of the present specification. The teachings of Matsuura et al. or Sagawa et al. would have motivated one of ordinary skill in the art, desirous of such properties, to incorporate cobalt into the magnets disclosed by Fujimura et al.

6. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimura et al. (U.S. patent 4,859,255) or Tokunaga et al. (U.S. Patent 5,041,172).

Fujimura et al. '255 and Tokunaga et al. disclose sintered magnets containing iron, boron, a rare earth element, cobalt, one or more of the "A" elements of the instant claims, and one or more of the optional elements of instant claim 5. The highest  $iH_c$  and  $BH_{max}$  values in the prior art appear to occur when the amount of cobalt is within the presently claimed range (see Tables 1-3 of Fujimura '255 or Tables 2 and 3 of Tokunaga), and numerous compositions set forth in those Tables have values for these properties within the presently claimed ranges. While no specific example of the prior art contains all of the elements as presently recited, the overlap in composition between the present claims and the disclosures of Fujimura et al. or Tokunaga et al. creates a prima facie case of obviousness of the presently claimed invention; compare *In re Malagari* (182 USPQ 549). One of ordinary skill in the art would have arrived at the contents of the presently claimed magnets by optimizing the amounts of the elements as disclosed by Fujimura et al. or Tokunaga et al., because the prior art references disclose the utility of magnet compositions over the entire range disclosed therein.

Art Unit: 1742

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. Effective October 1, 2003, all patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GPW  
December 2, 2004



GEORGE WYSZOMIERSKI  
PRIMARY EXAMINER